ABSTRACT OF THE DISCLOSURE

Techniques are provided for sequencing user data packets (e.g., voice packets) segmented into plural AAL2 packets which are in turn carried over Internet Protocol (IP). Concerning segmented user data packets, the techniques of the present invention utilize one or more predetermined values in the length indicator (LI) field in the headers of the certain ones of the plural AAL2 packets to carry information other than packet size information. Further, the techniques of the present invention use the User-to-User indicator (UUI) field of the AAL2 packets to carry AAL2 information such as segmentation notification and sequence-derivable information. For AAL2 packets which carry non-segmented user data packets (e.g., user data packets which can fit with the maximum size of a single AAL2 packet), the length indicator (LI) field contains the actual length of the AAL2 packet in conventional manner.